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A LINEAR DATA RECOVERY PHASE DETECTOR

ABSTRACT OF THE DISCLOSURE

An input data sequence is sampled according to a sampling clock such that a
first set of samples corresponds to data values and a second set of samples corresponds
5   to edges between the data values. The phase error between data transitions in the input
sequence and the sampled edges is determined based on amplitudes of the sampled
edges. The sampling clock's phase is adjusted based on the determined phase error.
Typically, the phase error is proportional to an amplitude of a sampled edge. Sampled
edge amplitude values are added or subtracted, according to the direction of each
10   transition about each edge to form an error value which indicates the amount phase
error.